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09/976,274	10/15/2001	Hyun-Soo Park	P56597	9123

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EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,274

Applicant(s)

PARK, HYUN-SOO

Examiner

Jin-Cheng Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities: On page 3, line 11, "person computer signal" should "personal computer signal". On page 9, line 13, "displaying the picture-in-picture and first signal" should be "displaying the personal computer signal and the first signal in picture-in-picture format".
3. The applicant or their representatives are urged to review the specification and submit corrections for all mistakes of a grammatical, clerical, or typographical nature.

Claim Objections

4. Claim 1 is objected to because of the following informalities: On line 7 of claim 1, "displaying the picture-in-picture and first signal" should be "displaying the personal computer signal and the first signal in picture-in-picture format". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1 recites the limitation "the picture-in-picture and first signals" in line 12 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-5 depend upon claim 1 and are rejected due to their dependency on the claim 1.

Claim 6 recites the limitation "the picture-in-picture and first signals" in line 12 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 7-9 depend upon claim 6 and are rejected due to their dependency on the claim 6.

Claim 10 recites the limitation "the picture-in-picture and first signals" in line 13 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 11-15 depend upon claim 10 and are rejected due to their dependency on the claim 10.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheney et al. U.S. Pat. No. 6,519,283 (hereinafter Cheney).

9. Claim 1:

Cheney teaches an apparatus for processing a signal (e.g., column 4, lines 28-57), comprising:

A signal-dispensing unit for dispensing an output signal output from a personal computer in the form of an analog or digital signal (e.g., figure 5; column 3, lines 22-40; column 6, lines 7-25; column 7, lines 19-37);

A signal processing unit for performing picture-in-picture signal processing (e.g., figure 3; column 6, lines 25-67) enabling one of a digital personal computer signal generated by the signal dispensing unit and a decoded first signal input from an outside source to be displayed on a main screen and the other to be displayed on at least one sub-screen (e.g., column 7, lines 19-37), and for processing the first signal to be displayed along on the main screen, the first signal being any one of a television signal and a video signal (e.g., figure 3; column 6, lines 25-67);

An output unit for outputting an analog personal computer signal generated from the signal dispensing unit in response to a control signal for displaying only the personal computer signal, and outputting an output signal of the signal processing unit in response to a control signal for displaying the personal computer signal and the first signal in picture-in-picture format (e.g., figure 5; column 7, lines 1-37); and

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A monitor for amplifying (i.e., scaling) the signal output from the outputting unit to be displayed (e.g., figure 3; column 6, lines 25-67; column 9, lines 15-67; column 10, lines 1-67; column 11, lines 1-5).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a signal conversion unit for converting the picture-in-picture signal output from the signal-processing unit into an analog signal before a signal is output from the outputting unit. However, Cheney further discloses the claimed limitation of a signal conversion unit for converting the picture-in-picture signal output from the signal processing unit into an analog signal before a signal is output from the outputting unit (e.g., column 6, lines 1-50).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a decoding unit converting the first signal into a digital signal and decoding the first signal; a scan rate conversion unit for converting a scan rate of the decoded first signal; and a signal processing unit for performing a picture-in-picture signal process on the first signal whose scan rate is converted and the digital personal computer signal, so that one of the first signal and the digital personal computer signal is displayed on the main screen and the other of the first signal and the digital personal computer signal is displayed on the plurality of sub-screens, or for processing the first signal to be displayed along on the main screen.

However, Cheney further discloses the claimed limitation of a decoding unit converting the first signal into a digital signal and decoding the first signal; a scan rate conversion unit for

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converting a scan rate of the decoded first signal (e.g., figure 5; column 7, lines 19-67; column 8, lines 1-67; column 9, lines 1-8); and a signal processing unit for performing a picture-in-picture signal process on the first signal (e.g., figure 3; column 6, lines 25-67) whose scan rate is converted and the digital personal computer signal, so that one of the first signal and the digital personal computer signal is displayed on the main screen and the other of the first signal and the digital personal computer signal is displayed on the plurality of sub-screens (e.g., figures 3-5; column 7, lines 19-67; column 8, lines 1-67; column 9, lines 1-8), or for processing the first signal to be displayed along on the main screen (e.g., figure 5; column 7, lines 19-37).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a decoding unit converting the first signal into a digital signal and decoding the first signal; a scan rate conversion unit for converting a scan rate of the decoded first signal.

However, Cheney further discloses the claimed limitation of a decoding unit converting the first signal into a digital signal and decoding the first signal; a scan rate conversion unit for converting a scan rate of the decoded first signal (e.g., figure 5; column 7, lines 19-67; column 8, lines 1-67; column 9, lines 1-8).

Claim 5:

The claim 5 encompasses the same scope of invention as that of claim 2 except additional claimed limitation of a decoding unit converting the first signal into a digital signal and decoding the first signal; a scan rate conversion unit for converting a scan rate of the decoded first signal.

However, Cheney further discloses the claimed limitation of a decoding unit converting the first signal into a digital signal and decoding the first signal; a scan rate conversion unit for

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converting a scan rate of the decoded first signal (e.g., figure 5; column 7, lines 19-67; column 8, lines 1-67; column 9, lines 1-8).

10. Claims 6-9:

Each of the claims 6-9 is a rephrasing of claim 1, 2, 4 and 5 in a method form. The claims 6-9 are rejected for the same reasons set forth in claims 1, 2, 4 and 5, respectively.

11. Claims 11-13:

Each of the claims 11-13 encompasses the same scope of invention as that of claims 1, 2, 4 and 5, respectively. The claims 11-13 are rejected for the same reasons set forth in claims 1, 2, 4 and 5.

Claim 14:

The claim 14 encompasses the same scope of invention as that of claim 10 except additional claimed limitation of the video signal being selected from the group consisting of a television video signal and non-broadcasted video signal.

However, Cheney further discloses the claimed limitation of the video signal being selected from the group consisting of a television video signal and non-broadcasted video signal (e.g., column 3, lines 22-40).

Claim 15:

The claim 15 encompasses the same scope of invention as that of claim 10 except additional claimed limitation of an analog to digital converter unit converting the output signal from the signal dispensing unit from an analog signal into a digital signal for the signal

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processing unit; and a digital to analog converter unit converting the output signal generated from the signal dispensing unit from a digital signal into an analog signal for the outputting unit.

However, Cheney further discloses the claimed limitation of an analog to digital converter unit converting the output signal from the signal dispensing unit from an analog signal into a digital signal for the signal processing unit (e.g., column 7, lines 1-37); and a digital to analog converter unit converting the output signal generated from the signal dispensing unit from a digital signal into an analog signal for the outputting unit (e.g., column 6, lines 1-50).


Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw
August 16, 2003


MICHAEL RAZAVI
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